



# ESCAPE INTO GAMIFICATION



AGENCY FOR  
MOBILITY AND  
EU PROGRAMMES



Co-funded by the  
Erasmus+ Programme  
of the European Union



The content of this publication was created as a part of a Training course “Escape into Gamification” funded by the European Union through the Erasmus+ Key Action 1 – Mobility project for Youth workers.

The training course was held in Zagreb, Croatia from 19th to 25th May 2022. There were 30 youth workers and volunteers from 9 partner organizations and 9 EU countries:

- Nezavisna udruga mladih, Croatia (hosting organization),
- ASOCIACIJA AKTYVISTAI, Lithuania,
- EuroMuevete, Spain,
- GEYC, Romania,
- Giosef Tonino – Marti Gianello Guida A.P.S., Italy,
- IASIS, Greece,
- Muhi Noortekeskus, Estonia ,
- Pi Youth Association, Turkey and
- PRISMS, Malta.

**In alphabetical order, we thank all the participants of the project for their contributions:**

Ak Furkan, Alexandru Ion Darius, Azzopardi Abraham, Bartolo Dejvid, Caruanna Ann Marie, Debono Michelle, Dogaru Stefan, Düzgün Gülay, Gaffarena Annabelle Borg, Giacosa Daniele, Gómez Manuel Ortuño, Güven Yunus Emre, Karp Laura, Kelemenić Matija, Malic Mariana, Mravlinčić Tanja, Ots Liia, Paska David, Poullos Alexandros, Riviera Riños Maria Victoria, Rodriguez Amigo Emilio David, Sargioti Evangelia, Segal Giovanni Riccardo, Skotida Ioanna Adamantia, Strelec David, Vallend Margit, Vosyliute Gabriele, Vuk Renato, Šimonis Matas, Špiljak Mihaela.

**Concept and editing:** Azzopardi Abraham and Vuk Renato

**Proofreading:** Jasmina Bunčić

**Layout and design:** Mihaela Špiljak

This publication reflects the views of the author only, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



## **TABLE OF CONTENTS**

## TABLE OF CONTENTS

<b>EDUCATIONAL GAMES</b>	<b>4</b>
INTRODUCTION TO EDUCATIONAL GAMES	5
GAME-BASED LEARNING	6
WHY USE GAME-BASED LEARNING?	8
EXAMPLE OF GAME-BASED LEARNING	8
TYPOLOGY OF EDUCATIONAL GAMES	9
<b>LEARNING THROUGH EXAMPLE – ESCAPE ROOM</b>	<b>12</b>
WHAT'S AN ESCAPE ROOM?	13
HOW TO CREATE AN (EDUCATIONAL) ESCAPE ROOM?	15
CREATING AN OUTLINE	16
SETTING UP A STORYLINE	18
PLAYING THE GAME	20
EVALUATE	22



# **EDUCATIONAL GAMES**

## INTRODUCTION TO EDUCATIONAL GAMES

One could say that no matter what a game is like or about, it has the potential to teach players something new. Simply throwing a ball from a student from one side of the room to the other can easily teach how to measure the strength of the throw, how to aim better, how to maintain contact with a playing partner, or how to focus and stay alert when waiting for the ball to be thrown at you.

Games engage us in and provide space for social interactions, letting us learn not only about our own strengths and weaknesses but about other players as well. Even though throwing a ball from one person to another does not qualify as a game (rather as a play), it can also be used for learning. Playing is one of the most natural ways to learn, with many sides to it.

We can play with space, objects, with one another, or even mix all these elements and play with all of them at once. But, if something such as a play (once defined as “aimless expenditure of exuberant energy”) can teach us about ourselves and the world around us, imagine what a game as a more complex and intended system can do.

In their book “The Study of Games”, Elliot Avedon and Brian Sutton-Smith define a game as “an exercise of voluntary control systems, in which there is a contest between powers, confined by rules in order to produce a disequilibrium outcome”.

There are so many definitions of games, types of games, and technical forms out there that it is hard to wrap your mind around what is and what is not a game. But as soon as you strip away the genre differences and the technological complexities, all games—no matter if played online, in a classroom, by yourself, or in a group—share four defining traits as described in the book “Reality Is Broken” by Jane McGonigal: goal, rules, feedback system, and voluntary participation.

The goal is the specific outcome that players try to achieve. It makes them more focused, attentive and keeps them oriented throughout their participation in the game. The goal provides players with a sense of purpose.

The rules place limitations on how players can achieve the goal. By removing or limiting the obvious ways of achieving the goal, rules push players to explore previously uncharted possibilities. They unleash creativity and foster strategic thinking skills.

The feedback system tells players how close they are to achieving the goal. It can come in form of points, levels, scores, and progress bars, or, in its most basic form, it can be as simple as the players' knowledge of an objective outcome: "The game is over when..." Real-time feedback serves as a promise to the players that the goal is definitely achievable, providing motivation to keep playing.

At last, voluntary participation requires that everyone playing the game accepts the goal, the rules, and the feedback knowingly and willingly. By doing so, common ground for multiple people to play together can be established; the freedom to enter or leave a game at will ensures intentionally stressful and challenging work is experienced as a safe and pleasurable activity.

Games model real-world systems that can help make learning concepts more relatable. To make a game educational, you can add a fourth defining trait: the desired learning outcome, the essential reason for creating the game. When designing an educational game, you look into the target group and the topic to identify relevant learning needs that will guide the game design process.

## GAME-BASED LEARNING

You can often encounter skepticism towards games. Some say "games" and "plays" are the opposite of "learning" and "seriousness". Today, many adults associate games with modern – day shooters from the first-person perspective. However, extensive research argues that play is integral to a child's development. It is a natural way to explore our environment, social constructs, and the world around us. Vygotsky wrote: "Games are the natural form of work in children, a form of activity which is inherent to a child, as preparation for life in the future."

Game-based learning (GBL) can be defined simply as "learning through games". For us, GBL is an approach to learning design. The educator consciously incorporates games in the curricula of their creation and intends to engage students in the learning process, spark curiosity, start a group discussion, revise content in a more interactive format, or provide an embodied experience that prolongs the learning effect. In short, GBL is the "intentional use of games and game elements in the educational process". We can appropriate and use games that have not been created for specific learning purposes or incorporate games designed with relevant learning outcomes in mind. As mentioned in Gamify Your Classroom, matching game mechanics with learning objectives, mixing in books and teacher-led reflection is a key to effective GBL. Ultimately, we would like to create meaningful experiences for learners to live through, leaving a long-lasting mark on their perception of any subject, topic or case.

## WHY USE GAME-BASED LEARNING?

Humankind has been using games and stories to teach for thousands of years. And using games in the learning process seem like a very logical thing to do.

In “Gamify Your Classroom”, Matthew Farber argues that games provide both a social construct and structure to give meaning to activities. He mentions developmental psychologist Jean Piaget who based his learn-by-doing theories on observations of children playing the game of marbles.

Several other educational theorists observed different forms of play and engagement with games and detected their effects on the learning and development of players. To play games, we voluntarily take up a challenge to learn and understand the rules first—and, often, it is as complex as understanding a new mathematical concept. But once we know the game, we willingly suffer to get better at it.

When we speak about GBL, it is not just about getting games to schools—it is about integrating a type of learning and teaching a game can bring. Games enhance problem-solving skills and motivate us to stay persistent, try again and get better each time. Games raise our acceptance of failure and mistakes, helping us see them as essential steps on the way to learning and development. One can find many reasons to use GBL:

- To reshape academic content into an appealing form
- To enhance critical and strategic thinking
- To engage students not otherwise engaged with the topic
- To support both struggling and talented students, allowing space for exchange

The main reason for exploring GBL as an educator is to create an environment that fosters real intrinsic motivation in learners, allowing them to discover, experiment and develop.

## EXAMPLE OF GAME-BASED LEARNING

To make things a bit less abstract and theoretical, we would like to give you a real example of GBL with a short analysis: Five Tricks.

"Five Tricks" is a card game played with traditional playing cards. In the version we use at our training, groups of four players are seated at several tables in a tournament-style setting. There is the lowest table and the highest table. By playing several rounds of a card game, a winner and a loser are decided at each table.



By playing several rounds of a card game, a winner and a loser are decided at each table. The winner moves one table up, the loser one table down, and the process repeats several times (usually until the timer runs out or a certain amount of exchanges between tables have occurred). So far, it seems like a regular game, right?

The game has a goal: to be sitting at the highest table by the time the game is over. It has rules: the card game itself has rules and the players are allowed to switch tables only when they win or lose. It contains a feedback system: the players are aware of the time remaining. In the card game, the players also track how many hands they won, whether they are better than others and have higher chances of moving upward. By keeping a track of how many times they switched tables, they can figure out how good they are compared to everyone else.

And, naturally, the players accept these rules, goals and choose to participate. The game could be aimed at training your skill of choosing the right cards, anticipating how your opponents will play and strategise. What happens, however, if we add a few more elements to the game? In Five Tricks, players are not allowed to use any verbal communication, and, most importantly, every table plays by different rules. The fundamental rules of the card game are the same, but each table has a slight adaptation of them: at table 1, the ace is the lowest card, the game is played clockwise, and spades are trumps, meaning any spade beats a high card. At table 2, the ace is also the lowest card, but the game is played counterclockwise, there are no trumps, and the highest card always wins. At table 3, the ace is the highest card, diamonds are trumps, played clockwise, and so on....

Each table plays by different rules, which would not seem like a problem until the first players change their tables. Without any prior knowledge, they are thrown into a completely different world—the inability to communicate verbally often causes frustration and questions start to pop up in the players' minds: "Did others not understand the rules? Are they stupid? Am I stupid? Should I teach them how to play it? How do I do this without speaking? What is going on?"

At this point, we are moving a bit more towards structured and planned GBL. The game is still a game. It still has the goal, rules, feedback system, and voluntary participation—without accepting the game, even though it might be getting very frustrating, the spell could easily be broken. So, what does all this mean? How is this educational? How does it promote learning?

Five Tricks was designed to open up the topic of intercultural communication, and it is safe to say that it simulates many of its aspects very well. The game sparks interest, most often through curiosity about what is happening, or frustration, which many players experience. But that is not enough for a real learning experience.

When the game is over, we let the curiosity and the frustration flow and ask the players: "How do you feel now? What do you think happened?" We move on towards extracting the wisdom "What strategies did you choose? What did you think about the others when you switched tables? How can you relate this to real-life situations?"

By sparking interest through a game, we can explore specific topics afterwards and dig deeper. We can gather the wisdom from specific players' experiences of moving to different places (or even switching workplaces, for that matter), rules that were new for them in real life, and perhaps move on towards an input about how culture works; how norms, identity or values are constructed. This is when the learning is truly happening and this is what GBL looks like.

However, it is not the only example of GBL: studying a language with Duolingo, a heavily gamified tool for language learning, definitely comes under GBL. Using a Kahoot quiz during a lesson to revise previously acquired knowledge can be considered GBL. Playing This War of Mine, a video game in which players take care of a group of civilians surviving in a war-torn city and then continue exploring topics that might be associated with the game, is also GBL.

## TYOLOGY OF EDUCATIONAL GAMES

Most common game execution:

**Tabletop games:** games usually played on a table or any other flat surface: board games, card games, dice games.

**Large-scale games:** games normally played with a group of people, involve physical movement, discovery, interaction with one another, possibly in various spaces.

**Video games:** games played by electronically manipulating images produced by a computer program on a display.

**Conversation games:** games that normally do not require movement and are based on verbal interaction among players in one room.

**Escape games:** games involving a group of players cooperating in discovering clues, solving puzzles and accomplishing tasks to progress and accomplish a specific goal.

### Most common game types:

**Simulation:** games that normally simulate a real event or a realistic situation where players act as themselves, interacting with other players, non-player characters or the game world  
**Roleplay:** games that normally create a story where players are required to take up a new identity and interact with each other or the game world.

**Puzzle:** games that normally challenge players to gain specific information, find out the right answer or a working strategy for a specific task.

**Adventure:** games that normally use the game world for exploration and interaction. Such games often include missions, rewards and possible plot twists with no direct win or lose situation.

### In escape games, we can also identify a few subcategories:

**Escape rooms:** a room full of puzzles and a mission to complete.

**Escape boxes:** a closed box that progressively unfolds like a matryoshka, with a specific mission to complete.

**Envelope-based puzzle games:** a story-driven game that unravels step-by-step through a series of envelopes given by hand.

**Puzzle hunts:** a game outside or in various spaces that utilises different puzzle stations or orienteering.

**Virtual escape games:** an escape game set in virtual reality by using a specific app or social media platforms.



**LEARNING THROUGH EXAMPLE –  
ESCAPE ROOM**

## WHAT'S AN ESCAPE ROOM?

An escape room is a game where players must work together to uncover clues, solve puzzles, and complete tasks in one or more rooms with the objective of completing a specified goal in a restricted period of time, and the main goal is simple... ESCAPE!<sup>1</sup> But, the main goal can also differ in relation to a different situation, scenario, setup, etc. A goal can and should be adjusted and it can be to discover something, for example resolving a mystery and offering a solution, it can be to find a secret object, it can be to act something out, to move something in a certain way, etc. There are a lot of different ways to offer a solution and to end/escape an escape room, but, as with everything else when creating an escape room, one has to be careful to adapt and merge all the pieces and details for the escape room to make sense and create a meaningful story as well as experience in general.

When thinking of escape rooms, most likely we will be thinking about, well the word says so itself, a ROOM. This does not necessarily be an accurate way of thinking but it is rather just the most popular, most recognized, the most practiced and probably the most entertaining way of working around an escape room. But, fortunately for us, there are other ways to make it work. Why do we say fortunately? If we think about it, we might not always have a room at our disposal, we might not always have the necessary props and we might not even have the necessary funds to support the development of such activity so it is important to be prepared for any situation. For example, we can make use of various online tools to create an escape room online, we can create an escape room in a board game fashion, we can use role-play with little to no props, etc.

In recent years, according to some studies (Villar, 2018), escape rooms have become one of the top leisure activities.

---

<sup>1</sup> Escape live, <https://www.escapelive.co.uk/what-is-an-escape-room/>, accessed on 10. 09. 2022.

The philosophy and purpose of escape rooms in education is to design interactive experiences, not only to promote cognitive content but mainly to cultivate a positive attitude towards the educational process.<sup>2</sup> Escape rooms are also beginning to receive attention as a potential practice to facilitate team-based research and ameliorate the performance of teams.<sup>3</sup>

Escape rooms seem to overshadow other suggested educational activities for efficiently building a great communicative, collaborative and thriving team. The time pressure boosts effective communication, consensus building, and trusting relationships. They can also stand for a playful alternative to the standard worksheet or assessment.

So, as we see, escape rooms are becoming more and more popular in various parts of learning, connecting, skill practicing, etc. It is becoming an effective tool not only for educational purposes but also in a working environment, to boost team performances, cultivate teamwork, improve communication, etc. There are a lot of positives to take out but what is most important, it is done in a fun way, it is attractive design-wise, it is interesting and it provides an adrenaline rush in different settings.

There are already a lot of different examples of online escape rooms that you can work on from the comfort of your couch and there is also escape room as a board game out there with different scenarios that you can play for hours. We will leave you here with a couple of examples of online escape rooms which show how you can make use of interesting picture designs and google forms to make an educational escape room where people can learn and improve various sets of skills while also having fun, at home, in front of a computer or a smartphone.

---

<sup>2</sup> A Framework for Creating Educational Escape Rooms and Interactive Games For Higher/Further Education Samantha Clarke, Daryl J. Peel, Sylvester Arnab, Luca Morini, Helen Keegan, Oliver Wood (2017.)

<sup>3</sup> Using Escape Rooms for Conducting Team Research: Understanding Development, Considerations, and Challenges, Andrew C. Griggs, Joseph R. Keebler, Elizabeth H. Lazzara, Shawn M. Doherty, Falisha F. Kanji, and Bruce L. Gewertz, Tara N. Cohen, Using Escape Rooms for Conducting Team Research: Understanding Development, Considerations, and Challenges (2020.)

### Example 1.

<https://sites.google.com/view/famousamericans2nd/home>

The site offers a set of online escape rooms with which you can, while solving puzzles, learn about different important historical figures from American history. Try it out.

### Example 2.

[https://docs.google.com/presentation/d/e/2PACX-1vRbQW\\_FsfE1oM11H4IXcQ4hi\\_IIIB6RUZV23jiM2arE-OCP83LT\\_CXg3oDGqDGZVFWkX5hOI8afSMzZ/pub?start=false&loop=false&delayms=3000&slide=id.gade20137d6\\_0\\_200&slide=id.gade20137d6\\_0\\_135](https://docs.google.com/presentation/d/e/2PACX-1vRbQW_FsfE1oM11H4IXcQ4hi_IIIB6RUZV23jiM2arE-OCP83LT_CXg3oDGqDGZVFWkX5hOI8afSMzZ/pub?start=false&loop=false&delayms=3000&slide=id.gade20137d6_0_200&slide=id.gade20137d6_0_135)

The second example focuses on some traditions and holidays so if you think you know your holidays – go and test your knowledge and have fun while doing so!

## HOW TO CREATE AN (EDUCATIONAL) ESCAPE ROOM?

If you google “how to create an escape room” you will encounter a number of articles, handbooks, suggestions, "tips & tricks", etc. on how to do it. None of those are wrong and everything can help you do it, in their own way. For this, educational purpose, we have tried combining a bit of everything and the best starting point to do so was the WikiHow page with tips and tricks on how to create an escape room – <https://www.wikihow.com/Plan-an-Escape-Room#Creating-an-Outline>. Creating an escape room and creating an educational escape room are in essence the same, one of a few differences is that for the educational purpose we have to dig deep, we have to be careful about how to combine and connect everything with special emphasis on how to connect the learning dimension and a gaming dimension.

According to everything mentioned above, there are 4 stages, 4 pillars when creating an escape room:

- Creating an outline – it is the start of your escape room, you have to think of the setup, you have to think of a timeline, players, a setting, platform, theme, etc. You go from an idea and start breaking it down.
- Setting up a storyline – it is the second phase of your escape room and more often than not it will be the most important phase, the soul of your escape room. You are going to set up a story of your escape room, connect it with every other part of your escape room and break down stories as much as it is needed to blend it all together.

- Making the challenges – for sure the most fun part. Here it is time to create challenges, and of course puzzles that go along with them. Everything that you have done so far is going to connect and this is where you add that spice, that game element in your educational escape room.
- Playing the game – the last phase where you set the whole escape room up, you will choose props that go along with everything you created through all previous phases, you will set the mood as you like it, test things out and repeat until you are ready and when you are ready – PLAY.

## CREATING AN OUTLINE

### a) Choose your topic

It is of vast importance important for you to know what you want to gamify because if you are unsure, if it is not clear enough to you, then you might have a problem with connecting the dots through other phases because it will, for sure, be unclear to the players/target groups. You will want to get a hold of exactly which topic you want to process, what message you want to send and what you want your target group (in this particular setting those are young people) to be educated about.

What might be an even more important question here is why you want that specific topic gamified and that is something that you have to be careful about way before deciding to go for an escape room. You will want to figure out why it is important for you and why it is important for the young people you are addressing. Once you have got your answers, you are ready to move on.

### b) Choose a theme

This is where you already start being creative and it is only just the beginning. You have the topic, now choose the theme for your escape room. How it is different from a topic? Well, the topic is what you want to gamify and the theme is how you want it to look. And here, you can choose anything you like but, of course, be careful, because your target group has to like it as well. It can be a movie theme, it can be a haunted house, it can be solving a mystery, superheroes, historic events, and anything you set your mind to.

**Tip:** Some topics will be more suited for some specific themes. Pay attention to that, and try to align them.



### c) Pick your platform

Is it going to be a standard escape room in a, well, room, are you more suited and in the mood for it to be a board game, is it going to be an online escape room? Your choice, but in all of the steps you have to be careful. Try and choose what you think best suits the topic and the theme you chose, but not only that – keep your resources in mind, do not push them and know your limits. It will also impact the experience and the desired outcomes.

Once you have your platform, visualize the experience, and choose a setting. Make sure you can create or purchase all the props that you need and that you can do it in time.

### d) Players

Pick several players in the escape room. This will also guide what type and how many puzzles and challenges you can/get to make. See how it is all connected? Based on the number of players you will be able to visualize how much would it take for a puzzle to be solved, how many different puzzles can be solved simultaneously, are there different challenges that players can take on at the same time, etc. When you have all that in mind, you will be on the right track to go on to the next step.

### e) Set a timeline

In escape rooms, the timeline is everything. Timeline is what brings out creativity, working under pressure skills, competition, etc. Choose wisely and try to be realistic but also push the limits of the players. Go for 15, 30, 45, 60 minutes or so. Most commonly the escape rooms go for 60 minutes but we will more often than not be faced with a much shorter amount of time. But do not despair, that does not make it any less fun and purposeful. On the contrary, it will be more fun and useful if you get your timing right.

**Note:** Imagine setting a timeline to 60 minutes and players escape in 15. It can create a counter effect where players will be disappointed because the escape room was too easy and they will not feel as rewarded as they should, while if you put a 15 minutes timeline on this escape room, however challenging the puzzles may seem, it will put more pressure and it will require a more skillful performance from the players, stimulate communication, encourage teamwork and produce a more rewarding feeling once completed.

## SETTING UP A STORYLINE

### a) Create a story, a soul of your escape room

The story is one of the most important parts that you can fix up in your escape room, especially when we are talking about an escape room for educational purposes. You are telling players what you want from them, what they will find, why they found it, how you want them to continue, etc. You are explaining the whole point of the escape room, you are pulling the strings, and you are giving out the tasks. Of course, most importantly, you are giving out information, you are sharing knowledge and you are making your point. The more interesting the story, the more interesting the game, the more committed players, and the greater outcomes.

What you have to be extremely careful about here is to “go with the flow”. This means writing the story that relates to the topic and the theme that you have previously chosen. It is of vast importance that all of the dots in your escape room are connected because if you are connecting the dots, the players are going to connect them as well. If you are not careful, it might be misleading and confusing and you do not want that to happen.

### b) Break it down

Your escape room has one big, main story the players have to follow but it can also be broken down into smaller pieces. You can give out stories along the way that are leading the players in the direction you want them to go. These stories can act as part of the challenges/puzzles that you set throughout your entire escape room.

So for example, when players figure out a puzzle, they can find a piece of the story that hints out the next challenge that awaits them, that rewards them for their success so far, that gives them a key piece of information, that hints out some important information which you want them to learn, and similar.

Keep in mind that for the best effect, you go through this story as you would like to go through any other story – the greatest example is a book you read – to have an intro, middle, climax, and conclusion. You have to have your plot tied together, from start to finish.

**Tip:** You can make a flowchart to break down your story to follow it and to see if it is making as much sense as it does in your head.

### c) Double-check

As much as it is a step in your creation, it is also a bit of friendly advice – always double-check everything that you do! Re-read the story, give your flowchart a second look, think of what you have done so far from the perspective of a player...

## MAKING THE CHALLENGES

### a) Set up a challenge

Occasionally, you might skip a step or you might be ahead with some steps like this one because it already starts forming in your head at the beginning. Nevertheless, now you are rolling. Think of a challenge that you want your players to work towards. Is it the simplest one (in theory), to just escape the room? Or is it to figure something out, get some facts straight, do something (like a motion, or act something out, say something, push a button, find an important object...), solve the mystery, fight the boss like in a PC or PS game – any challenge that you might think of is probably good enough.

But, always, in any of these steps, keep in mind the topic and the theme that you have chosen/set at the beginning of your escape room story. Not only that you have to have that locked up in your mind at all times, but you also have to follow the story. Your story and your challenges are all going in the same direction.

**Tip:** You can set up more challenges to solve but you have to think it through. Will it be misleading, do you have enough space/time, does the story fit? Sometimes you can have a couple of challenges, a couple of directions that lead to the same outcome. This can be especially fun when you have a roleplay included in the escape room or roleplay is your whole escape room. You can have different situations that, based on the actions and reactions of the players, lead to different outcomes.

### b) Create puzzles

The most interesting part of the escape room is to complicate someone's life and what better way to do it than puzzles. Here, you create pretty much all of the "interesting" parts of the escape room for the actual player.

Here, you make your story unfold. You have to pay attention to your story and the challenge(s) you have set for the players to accomplish at all times. It has to make sense, it has to be connected, it has to be interesting, attractive, exciting and fun.

You set puzzles according to the timeline you have chosen as well. You have to make sure there is enough time to solve all of the puzzles and to accomplish a challenge or challenges that were set. You can create as many puzzles as you want.

You can get the idea from your head if you feel creative enough, you can look it up on the internet, you can remember the escape rooms that you might have been to, anywhere you like.

The resources are almost limitless. Sometimes, the best puzzles might seem like the easiest on the eye to solve, but when they are well connected with the story, they have a much greater effect on the players.

For puzzles to be solvable but also more interesting and attractive to players, you will place clues around the room (or other settings of your choosing), you use props, and anything you can think of that might be a part of the puzzle, act as a clue that leads to the puzzle, or that could help you solve the puzzle.

You set out clues logically, connected and supplementing each other while following, once again, the story you set up.

When you are making puzzles, you are also thinking of the props, materials, equipment locks, boxes, etc. that you will use to set up a setting/scene and bring your puzzles to life. Make sure that you have carefully planned what you will use according to your available resources because there can be a tiny thing that might be missed and that can disrupt your escape room.

Also, bear in mind that you have to have reserves/backups and the simplest of examples might be plain paper. But also, keep in mind that some of the props might be broken throughout the game, for example locks. You have to either have the solution on how to fix it and be sure about it, or have a backup ready to be installed.

Example of misfortune: during one of the escape rooms in which there were supposed to be around 30 teams involved, the first team that went into the room accidentally changed the combination on one of the locks. The only possible solutions were to have the exact same lock or have the luck to guess the combination and try to return it to the one you need. In an escape room, especially “homemade”, anything can happen, even the funniest of situations that go through your head while planning.

**Tip:** be prepared for anything!

To sum up what you can do:

- Create a logical sequence of puzzles that are building on from one to another in line with everything you created so far
- Use locks and cyphers, combinations and codes to lock information or items
- Put items in plain sight that have hidden information or items that might just distract the players (it is up to you how you will set up the room or any other environment that you have placed your escape room in)
- Choose props and design your room to make your theme, topic and puzzles more efficient and effective

## PLAYING THE GAME

### a) Choose/make up hints

Hints are a very important part of the game as players can sometimes get stuck in your escape room. They will lose a lot of time and you can either choose to help them or they can choose to ask for your help.

You have the power so you can choose the way hints work (give examples – knocking on doors, sending a text message, saying it out loud, etc.).

What is important here is how you think of hints, and how you see them. You will have to even think of the hints, the situations that might seem too obvious, the puzzles that you think are too easy not to be solved – you have to be prepared for any situation. It is best to choose hints for every puzzle you make, from its start to its finish. It is important not to be giving out the solution immediately, you have to try and guide the players out of a situation that they found themselves stuck in, for the sake of keeping the game interesting for them, to keep them invested. Your goal is to try helping the players think, help them get to a solution and then, if they are not succeeding, you can give out the solution, but that should be your last resort.

### b) Choose how you value the success

It is totally up to you. You can even choose whether or not you want to have a value system but, in this case scenario, where it is our goal to educate, we suggest that you come up with and follow some sort of a value system. In this way, you can also keep track of your plan, of the purpose of the escape room – it might help you realize how much players have learned during their experience.

In general, rewarding can be done by giving points or rewards, you can even reduce points for giving hints, etc., whatever system suits you best. This can, along with everything else make the game more competitive, interesting, and exciting.

You can choose this based on what you want to achieve and what is the occasion, the target group, etc. You can also pick a prize that you want to give to the ones that are successfully completing the escape room.

### c) Set the mood

You can use previously mentioned props, human extras, music, lights and projections, basically anything you can think of. You can even make the players part of the story, give them roles that they will play and even detailed instructions on how to behave.

**Example:** Tie players' hands together to do something, first they have to set themselves free to be able to walk around the room freely and try and solve some puzzles, investigate the room, play around with the props, etc. Let your creative side blossom here.

#### d) Test things out

Speaking of the most important parts of the job. To test things out is of vast importance because you get feedback on almost every part of your escape room design. Desirably, you will have a team of outsiders testing your escape room and ask them to give you detailed comments. Most often, as you watch the test players play your game, you will already start to see the room for improvement.

You can see if the story is good enough and well connected with the rest of the escape room, how are the setting and design accepted, are the puzzles too difficult or maybe even too easy, is there enough, too much or too little time to escape, are the rules set clearly, are the hints good and are they working, what kind of props/equipment you might use or might exclude, what you need more reserves for, etc.

Give yourself enough time to correct what needs to be corrected to be ready for the players.

**Tip:** Test it out as many times as you want and as many times you think you need. Better safe than sorry!

#### e) Explain the rules and give instructions

Before you start, you should explain the rules and give instructions that you created before to the players and that will help them play the game but also help you enjoy it a bit more because in this way you can also prevent some accidents that might give you hard time throughout the game. The rules can also be anything you want – what players can and cannot use, what they are allowed to touch, how much time they have, how they can ask for hints, what is expected of them, the roles that you would like to give them (if any), etc.

**Tip:** If you can, figure out a way how to watch the players play the game – a camera as a prop, include yourself in the game, through the glass or something similar. It will help you a lot in following the game, helping the players with hints, even warning the players if they are doing something they are not supposed to, helping the players if they are stuck but 'too proud' or too busy to ask for a hint, etc.

#### f) PLAY THE GAME!

You earned this, now watch the story unfold in front of you!

## EVALUATE

One thing that we should pay attention to, and that could play a big in this story, especially as we are doing it for educational purposes, is evaluation. Not only it would help us realize and compare how much was accomplished compared to what we were planning to do, how much payers have accomplished, what they have learned, what they figured out, which skills they have acquired or improved, and how they have reacted and liked the game and so on, it would also help us improve, do things differently next time around, become more successful and have a greater impact on the target group, on young people.

### What can we evaluate?

- The escape room itself (entertainment level, puzzles, challenges, story, general impression...)
- Skills gained (soft skills, teamwork, problem-solving, communication, critical thinking, etc.)
- Knowledge acquired (to what extent did we manage to pass on our message, to communicate with the players, to educate/inform them about the topic, did they understand what we wanted to tell them, how much of the information they acquired do they remember, are they motivated to learn more about the topic, are they going to research more, etc.)
- What we can improve, how we can do things differently, what was right or what was wrong...

As always, we evaluate to adapt. We evaluate to get feedback on what we can do better and how we can do it. With evaluation, we get to know our target group a bit better, we figure out what they want and, for example, which topics might be even more important to address in the future, what we can emphasize a bit more and what can be put aside.